BRUHAT BANGALORE MAHANAGARA PALIKE

Yelahanka Zone, Electrical Division

Name of work :- Detailed Estimate for Providing LED Street lights/Control switches/control wires at Dark/vulnerabale places in Ward no 06,07&08

Budget Head

Ward No. Estimate No.. For Rs 13300000.00

Sl No	SR Page no	Description Of Work	Unit	Qty	Rate	Amount
1	66/12/8 4	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation Lamp compartment comprising of anti glare clear diffuser with injection moulded polycarbonate material, delivering superior light output Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08 Power Factor >0.9 with mains Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection Compatible for pole mouting with outer dia of 40mm to 50mm Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application Compliance to IS 10322/IEC 60598 LM 79 & LM 80 Adherence with RoHS, UL approved MCPCB Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools LED Light fixture with W System Power consumption LED Efficiency>130lm/w, nominal CRI >75 Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 Housing with supplier word mark /name shall be Engraved Embossing on the die cast housing/ Body part Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source LED Streetlight 90 Watts	Nos	1189	7160.00	8513240.00
2	79/14.1 2	Supplying and Fixing of mm dia class A GI pipe bracket up to 2 Mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps bolts, and nuts and wiring using suitable capacity wires Using 32mm dia G.I Pipe	Nos	1190	835.00	993650.00
3	79/14.5	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacit wires	Nos	1223	175.00	214025.00
4	7/2.7.1	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of nominal cross sectional area 4 sqmm	Mtrs	3400	9.00	30600.00

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Electrical Division
Bengaluru Mahanagara Palike

		Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947 (Icu = Ics) 100Amps 25kA	Nos	36	4530.00	163080.00
6	26.5.43	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector terminal for 3 Ph / 1 Ph connections with Loop-In & Loop- Out terminals for 10 Sqmm 25 Sqmm 3.5 C Al/Ar / Cu/ Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC insulated cable enclosed in a Thermoplastic Polystyrene enclosure which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic polyamide glands and/or grommets 260mmx210mmx116mm	Nos	36	2054.00	73944.00
	23.8.4.4	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1. Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm	Mtrs	500	150.00	75000.00
	23.8.6	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required On wall /Structure 6 sqmm to 16 sqmm	Mtrs	500	30.00	15000.00
9	23.8.44	Supply and Installation / Fixing / Provision of Outdoor type Thermoplastic Modular Panel enclosure with transparent Polycarbonate Lid, shock proof, IP65 (Weather Proof), rust proof, dust proof, water proof, corrosion proof having internally Embedded gasket on both lid and flap suitable to fix Single Phase / Three Phase Energy Meter in suitable base plate and having a provision for Fuse / MCB cutout with suitable transparent hinged flap opening for operating MCB along with complete tamper proof SEALING facility 300mmx450mmx214mm	Nos	30	5127.00	153810.00
10	27.5.17	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve indicator ON OFF energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required conforming to IEC 60898 50-63 Amps SP	Nos	30	723.00	21690.00
11	26.5.13	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board including necessary bolts, nuts, washers and wiring complete with AC-3 Rating and as per IS-13947 / 109 to 125Amps	Nos	30	7200.00	216000.00
12	26.5.26	Supplying, fixing and wiring rotary selector switch suitable for Voltmeter / Ampmeter	Nos	30	135.00	4050.00
13	58.3.1	Supplying and forming of GI/Copper strips for grounding connections, using necessary fixing materials as required 25 mm GI strip	Mtrs	16	75.00	1200.00

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	45/3.3	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694 confirming to latest amendments 6 sqmm	Mtrs	15	70.00	1050.00
15	43/6.17	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes 6 sqmm	Nos	150	7.00	1050.00
		BESCOM SR 2018-19				0.00
16	1.1.01	Supply of RCC Pole - 9 Mtr Long, 145 Kg WL (Dwg No BESCOM/GM/QS&S/02 Dtd 24.11.2018) as per IS-785	Nos	4	6258.00	25032.00
17	1.1.1	Digging of Pits 1.8 mtr depth for errection of 9 to 10 mtr Long Steel/RCC/PSC supports as per approved Drawing 1)Ordinary Soil	Nos	4	416.00	1664.00
18	1/2.07	Supply of LT 2 Pin X Arms - MS (Dwg No. BESCOM/GM/QS&S/32 Dtd 24.11.2018)	Nos	4	87.00	348.00
19	2/2.01	Erection of steel supports 9.0 to 10.00 mtr long such as 22.68 kg (50 lbs) Rail, 27.22 kg (60 Lbs) Rail I Beam of sizes 200x100mm, 175x90 mm, 125x100 mm Fabricates poles tubular poles in pits of 1.8 mtr Depth, Aligning, Refilling with soil and ramming as approved drawing	Nos	4	334.00	1336.00
20	145/3004.1.07	1.1 kV, LT Aerial Bunched Cable, confirming to IS-14255: 1995 XLPE insulation Parameter shall be as below 1. Hot Set Test: a) Elongation under Load: 50% (Max) b) Permanent Elongation After Cooloing: 3% (Max) 2. Thermal Aging in oven: a) Tensile Strength: 16 N/mm² (Min) b) Elongation: 375% (Min) 3. Water Absorption Test a) Water absorbed: 0.5 mg/cm² (Max) 4. Carbon Black Content shall be ranging from 2% to 3% 3x25 + 1x25 + 1x16 Sqmm Street light (Insulated Messenger cum Neutral)	KM	2.50	147000.00	367500.00
21	224/2703.4.04	Stringing of 1.1 kV grade Aerial Bunched 3 Core cable of XLPE insulation of size (3x95) (Phase Conductor) + (1x70) (Insulated Messenger Neutral) + 1x25 (Street Light Control	KM	2.50	22469.00	56172.50

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Bruhath Bengaluru Mahanagara Palike

23	19.24.1.2	Fabricating, supplying and erecting swaged tubular pole of height 7 Mtr having three sections and providing two coats of red oxide paint and finished with two coats of enamelled paint of approved quality and colour and M.S. base plate of suitable size welded at the bottom of the pole(as per IS) and 40mm dia GI / flexible PVC pipe of 1 mtr length fitted to the heavy gauge polycarbonate control box including 5way connector of size 167x125x82mm for 7.5M pole/200x160x98mm for remaining length of pole with front opening cover, with locking arrangements and suitable capacity MCB / DP switch. The pole shall be erected in cement concrete work (1:2:4) including excavation and refilling of planting depth of the pole to the ground level and the coping CC shall be up to 0.6M above ground level as per IS 2713 - 7 Erection of heavy duty pole on Footpath / median10Mt (5Mt Hb,165.1mm dia 4.85mm thick x3M Hm, 139.7mm dia 4.50mm thick x 2M Ht 114.3mm dia 3.65mm thick) as per IS 410 SP 47	Each	15	6720.00	250800.00
24		Supplying and fixing telescopic M.S. bracket fabricated by using 0.5m length 4" dia telescopic M.S. pipe, with 2" dia 1.5m long M. S. bracket and are welded with suitable angle, using 6mm thick M. S. sheet, grip bolts & nuts as required, suitable for 9 to 12 Mtrs. M. S. tubular pole, with necessary two coats of painting, with all other accessoriesSingle bracket 1.5 Mtr. Length	Each	15	1200.00	18000.00
		Total Rs				11198241.50
		Add 12% GST				1343788.98
		Tender Premium 5%				624969.52
		PMC Charges 1%				133000.00
		Mislenious Charges				0.00
		Total Rs				13300000.00

CERTIFICATE :-

1. The place was inspected and the work is essential
2. The provision made in the estimate are adequate and necessary and the work comes in the BBMP limit and is legitimate Charges on the BBMP funds.
3. The estimate is based on KPWD (Ele) S.R.of 2019-20 &BESCOM Sr 2018-19
4. This work is not taken up in any other previous work

Assistant Engineer (Ele)
Yelahanka Zone

Assistant Executive Engineer (Ele)
Yelahanka Zone

Executive Engineer (Ele)
Yelahanka Zone, BBMP